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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/724,182	11/28/2000	Robert Edward Meredith Swann	R & G C-314	7753

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EXAMINER

ALAVI, AMIR

ART UNIT PAPER NUMBER

2621 :

DATE MAILED: 01/16/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/724,182

Applicant(s)

SWANN ET AL.

Examiner

Amir Alavi

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,9 and 11 is/are rejected.
- 7) ☒ Claim(s) 2,4-8,10 and 12-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Specification**

- Claim 1 is objected to because of the following informalities: On lines 10-11, wherein, "means supplying", should be changed to, "means for supplying".
- Appropriate correction is required.

### **Claim Rejections - 35 USC § 102**

- The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- Claims 1,3,9 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Bobrow et al. (US 6,562,077 B2).

Regarding claim 1, Bobrow et al., disclose: means for supplying a multi-level digital representation of the image (Please note Abstract of the invention, lines 5-9. As indicated the document search system initially segments document images into one or more layout objects. Each layout object identifies a structural element in a document such as text blocks, graphics, or halftones. Herein, it's evident that these text blocks, graphics or halftones are of multi-level representation of the image); means for identifying predetermined objects in the image and supplying data defining their locations (Please note Abstract of the invention, lines 9-14. As indicated the document search system computes a set of attributes for each of the identified layout objects. The set of attributes are used to describe the layout structure of a page image of a document in terms of the spatial relations that layout objects have to frames of reference that are defined by other layout objects. Herein it's evident that these set of attributes identify the location of the predetermined objects, that is the identified layout objects); means for deriving segmentation data from the multi-level digital representation (Please note the Abstract of the invention, lines 16-20. As indicated after receiving a feature or attribute and a set of document images selected by a user, the system forms a set of image segments by identifying those layout objects in the set of

document images that make up the selected feature or attribute); means for combining the data defining the locations of objects with the said segmentation data (Please note Abstract of the invention lines 20-22. As indicated the system sorts the set of image segments into meaningful groupings of objects which have similarities and/or recurring patterns); means for clustering the predetermined objects into groups for each segmented region (Please note, figure 18, in correlation to column 31, lines 8-10. As indicated clusters of document images are formed by ranking their distance measurements) and means for supplying data relating to the groups for subsequent analysis (Please note, column 31, lines 10-15. As indicated the features selected for each document image in the selected set of document images are displayed according to the clusters of features which have been ranked by similarity to the feature of the selected at earlier step. It is clear that this displaying criteria is a form of analysis) .

Regarding claim 3, Bobrow et al., disclose, wherein the objects are text objects (Please note, column 30, line 31. As indicated the document name is specified in text field).

Regarding claims 9 and 11, arguments analogous to those presented for claims 1 and 3, respectively, are applicable.

### **Allowable Subject Matter**

- Claims 2, 4-8, 10 and 12-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- The following is a statement of reasons for the indication of allowable subject matter: None of the prior art disclose or fairly suggest wherein having a second segmentation means receiving the multi-level representation of the image and the data identifying the locations of the objects in the image to derive segmentation data relating to difference in the data of the multi-level representation from the said objects, and wherein the segmenting means receives this segmentation data and further segments the data defining locations of object image in dependence on this segmentation data.

### **Other prior art cited**

- The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Al-Hussein (US 5,809,167) is pertinent as teaching page segmentation and character recognition system.

Hirao et al. (US 6,327,384 B1) is pertinent as teaching character recognition apparatus and method for recognizing characters.

Mahoney et al. (US 5,999,664) is pertinent as teaching system for searching a corpus of document images by user specified document layout components.

Al-Hussein (US 5,818,978) is pertinent as teaching image pre-processor for character image recognition system.

Itonori et al. (US 5,943,443) is pertinent as teaching method and apparatus for image based document processing.

Pascovici et al. (US 5,883,973) is pertinent as teaching method and apparatus for processing a document by segmentation into text and image areas.

Nakao et al. (US 6,064,769) is pertinent as teaching character extraction apparatus, dictionary production apparatus and character recognition apparatus, using both apparatuses.

## Contact Information

- Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Amir Alavi whose telephone number is (703) 306-5913.
- The Examiner can normally be reached on Monday through Thursday from 8:00 a.m. to 6:30 p.m. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Leo Boudreau, can be reached at (703) 305-4706.

Any response to this action should be mailed to:

Assistant Commissioner for Patents


Washington, D.C. 20231

**Or faxed to:**

(703) 872-9306, ("draft" or "informal" communications should be clearly labeled to expedite delivery to Examiner)

**Hand delivered responses** should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application should be directed to the T.C. Customer Service Office whose telephone number is (703) 306-0377.

AA  
December 08, 2003



**ANDREW W. JOHNS  
PRIMARY EXAMINER**